

Appl. No. 09/980,225
Amdt. Dated July 14, 2003
Reply to Office Action of March 27, 2003

• • R E M A R K S / A R G U M E N T S • •

The Official Action of March 27, 2003 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment each of claims 6, 11 and 12 have been changed to recite a molding material for use with carbon dioxide refrigerant, wherein the molding material is formed into a sealing element in a carbon dioxide refrigerant-contacting apparatus.

This change to claims 6, 11 and 12 has been made in response to the outstanding rejection of these claims under 35 U.S.C. §101. Under this rejection the Examiner has taken the position that the recitation of "for use" and "for sealing" failed to further limit these claims and therefore, they were directed to non-statutory subject matter.

It is believed that claims 6, 11 and 12, as amended herein are directed to statutory subject matter.

It is noted that the Examiner has examined claims 6, 11 and 12 on the merits.

New independent claims 13 and 14 have been added to complement claims 6, 11 and 12 and present the subject matter of these claims in independent form. New claim 13 recites a carbon dioxide sealing element used in a carbon dioxide refrigerant system. New claim 14 recites a carbon dioxide sealing element.

Entry of the changes to the claims is respectfully requested.

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Claims 1-14 are pending in this application.

Claims 1, 3-6, 8-10 and 12 stand rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 0 014 336 to Vaidya.

Claims 1-3, 5-9 and 11 stand rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,484,844 to Oshima et al. or U.S. Patent No. 5,914,195 to Hori et al.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art of record and therefore, each of the outstanding rejections of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is respectfully requested.

The Examiner has relied upon Vaidya as showing "chlorinated polyethylene copolymers having the chlorination percent as requisite claim 1.

The Examiner has relied upon each of Oshima et al. and Hori et al. as showing "chlorinated polyethylene copolymers which are used in combination with vinyl chloride resin compositions."

Applicants' claimed invention is directed to a molding material that was developed for used in conjunction with carbon dioxide refrigeration systems and particularly a molding material from which sealing elements including seals can be made which will effectively seal carbon dioxide. As the Examiner can appreciate, carbon dioxide, when used as a refrigerant requires higher pressures than conventional Freon refrigerants. Moreover, carbon dioxide has a higher permeability and

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solubility so that it can more easily leak from conventional sealing materials and cause blistering thereof.

Vaidya is directed to heat resistant, curable, chlorinated polymers that are useful as wire and cable coverings "because of their resistance to ozone, oxidizing chemicals, heat and light."

Nothing in Vaidya suggests that applicants' claimed molding material is suitable for use in conjunction with carbon dioxide refrigerants or that the molding material can be used to make sealing elements that will effectively seal a carbon dioxide refrigerant.

Accordingly, Vaidya neither teaches nor suggests applicants' claimed invention.

Oshima et al. is directed to vinyl chloride resin elastomer compositions which have excellent compression set as "demanded for materials of e.g. glass runs and weather strips."

Nothing in Oshima et al. suggests that applicants' claimed molding material is suitable for use in conjunction with carbon dioxide refrigerants or that the molding material can be used to make sealing elements that will effectively seal a carbon dioxide refrigerant.

Accordingly, Oshima et al. neither teaches nor suggests applicants' claimed invention.

Hori et al. is directed to thermoplastic resin compositions that are "excellent in creep resistance and bond strength" and which are useful as sealing materials and gaskets..

Hori et al. measures compression set and impact resistance, but is silent on any properties which would indicate that the thermoplastic resin compositions would be suitable or useful in conjunction with carbon dioxide refrigerants or that the molding material can be used to make

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sealing elements that will effectively seal carbon dioxide. Such use was not conceived or relevant properties required for such use were not tested by Hori et al.

Accordingly, Hori et al. neither teaches nor suggests applicants' claimed invention.

The Examiner appears to be taking the position that the various prior art references teach compositions that would "inherently" be useful in conjunction with carbon dioxide refrigerants.

As held by the court of appeals in *In re Shetty*:

Inherency is quite immaterial if, as the record establishes here, one of ordinary skill in the art would not appreciate or recognize that inherent result.

The inherency of an advantage and its obviousness are entirely different questions. That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is known. (*In re Shetty*, 195 USPQ 753(CCPA 1977))

In the present case, the use of chlorinated polymer compositions does not lead to the conclusion that the prior art compositions are useful in conjunction with carbon dioxide refrigerants or that all chlorinated polymer compositions can be used to make sealing elements that will effectively seal carbon dioxide.

Inherency cannot be found in the present case where the prior art fails to recognize the use of applicants' claimed molding materials, especially when the claims recite the limitation of a "molding material for use with carbon dioxide refrigerant."

It is believed that the phrase "for use with carbon dioxide refrigerant" breathes life and meaning into the claims. Note the court of appeals' holding in *Loctite Corp.*:

Term in preamble of patent claim breathes life and meaning into the claims and hence is a necessary limitation to them. *Loctite Corp. v. Ultraseal, Ltd.*, 228 USPQ 90, at 92 (CAFC 1985)

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Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicants' claimed invention.

Moreover, the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

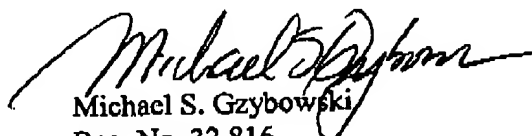
It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

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To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,


Michael S. Gzybowski
Reg. No. 32,816

BUTZEL LONG
350 South Main Street
Suite 300
Ann Arbor, Michigan 48104
(734) 995-3110